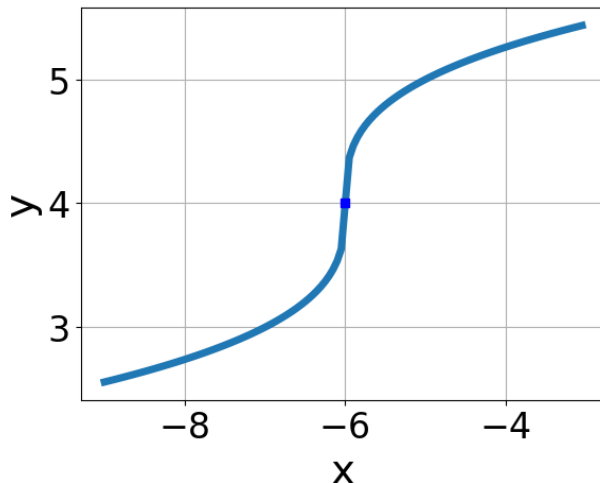


1. Choose the equation of the function graphed below.



- A.  $f(x) = \sqrt[3]{x+6} + 4$
- B.  $f(x) = \sqrt[3]{x-6} + 4$
- C.  $f(x) = -\sqrt[3]{x-6} + 4$
- D.  $f(x) = -\sqrt[3]{x+6} + 4$
- E. None of the above

2. What is the domain of the function below?

$$f(x) = \sqrt[4]{-7x-8}$$

- A.  $(-\infty, \infty)$
- B.  $[a, \infty)$ , where  $a \in [-1.2, -1.07]$
- C.  $(-\infty, a]$ , where  $a \in [-1.1, -0.39]$
- D.  $(-\infty, a]$ , where  $a \in [-1.24, -1.06]$
- E.  $[a, \infty)$ , where  $a \in [-0.89, -0.69]$

3. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-7x-6} - \sqrt{-4x+6} = 0$$

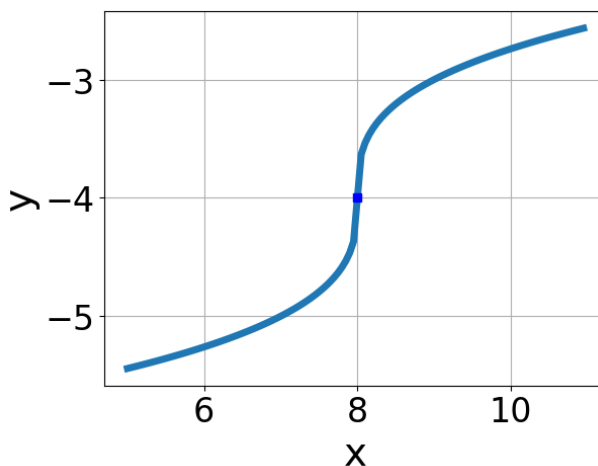
- A.  $x_1 \in [-1.95, -0.73]$  and  $x_2 \in [1.2, 1.6]$
  - B. All solutions lead to invalid or complex values in the equation.
  - C.  $x \in [-4.73, -3.97]$
  - D.  $x_1 \in [-4.73, -3.97]$  and  $x_2 \in [-3.2, 0.8]$
  - E.  $x \in [-0.65, 0.93]$
- 

4. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-2x + 6} - \sqrt{-3x - 7} = 0$$

- A.  $x \in [-16, -8]$
  - B. All solutions lead to invalid or complex values in the equation.
  - C.  $x_1 \in [-5.33, -1.33]$  and  $x_2 \in [1, 5]$
  - D.  $x_1 \in [-16, -8]$  and  $x_2 \in [1, 5]$
  - E.  $x \in [0, 4]$
- 

5. Choose the equation of the function graphed below.



- A.  $f(x) = \sqrt[3]{x - 8} - 4$
- B.  $f(x) = -\sqrt[3]{x - 8} - 4$

- C.  $f(x) = -\sqrt[3]{x+8} - 4$   
 D.  $f(x) = \sqrt[3]{x+8} - 4$   
 E. None of the above

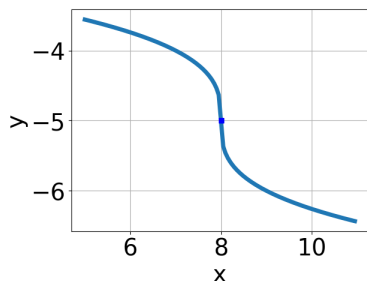
6. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{12x^2 - 32} - \sqrt{8x} = 0$$

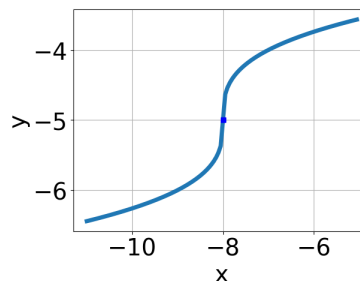
- A.  $x_1 \in [-1.73, -0.76]$  and  $x_2 \in [0, 6]$   
 B. All solutions lead to invalid or complex values in the equation.  
 C.  $x_1 \in [0.82, 1.39]$  and  $x_2 \in [0, 6]$   
 D.  $x \in [-1.73, -0.76]$   
 E.  $x \in [1.89, 2.04]$

7. Choose the graph of the equation below.

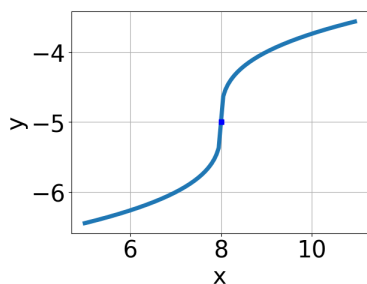
$$f(x) = -\sqrt[3]{x-8} - 5$$



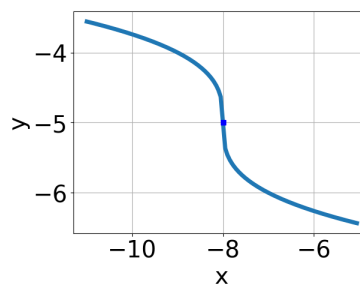
A.



C.



B.



D.

- E. None of the above.

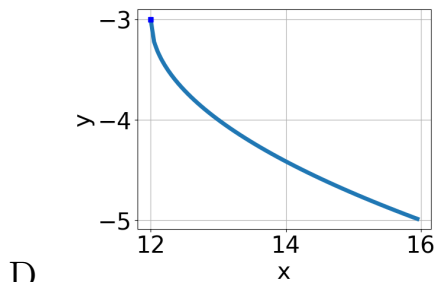
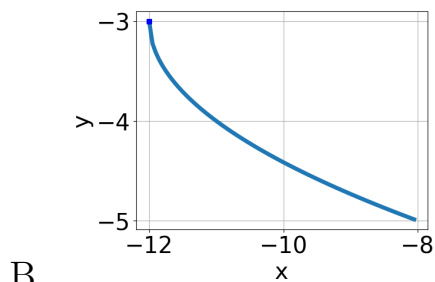
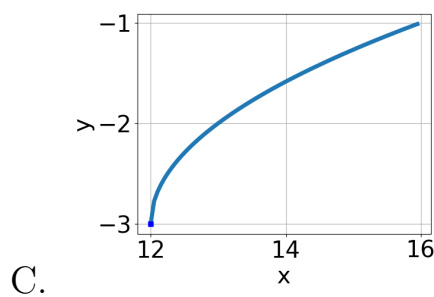
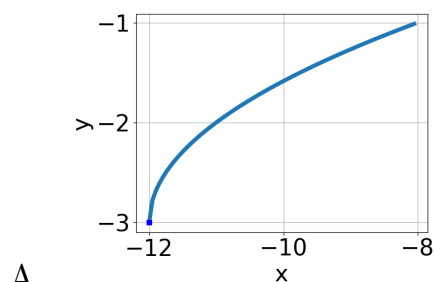
8. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-27x^2 + 35} - \sqrt{-24x} = 0$$

- A.  $x \in [1.6, 2.1]$
- B.  $x_1 \in [-3.5, 0.1]$  and  $x_2 \in [0.67, 4.67]$
- C. All solutions lead to invalid or complex values in the equation.
- D.  $x_1 \in [0.7, 1.4]$  and  $x_2 \in [0.67, 4.67]$
- E.  $x \in [-3.5, 0.1]$

9. Choose the graph of the equation below.

$$f(x) = \sqrt{x - 12} - 3$$



- E. None of the above.

10. What is the domain of the function below?

$$f(x) = \sqrt[3]{8x + 9}$$

- A. The domain is  $(-\infty, a]$ , where  $a \in [-1.45, -1]$
  - B. The domain is  $(-\infty, a]$ , where  $a \in [-0.96, -0.54]$
  - C.  $(-\infty, \infty)$
  - D. The domain is  $[a, \infty)$ , where  $a \in [-0.92, -0.86]$
  - E. The domain is  $[a, \infty)$ , where  $a \in [-1.64, -1.01]$
-